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| 09/919,650 | 07/31/2001 | Peter Pius Gutberlet | 1011-57071 | 5758 |
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| KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET SUITE 1600 PORTLAND, OR 97204 | | | BONSHOCK, DENNIS G | |
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DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/919,650

Applicant(s)

GUTBERLET ET AL

Examiner

Dennis G. Bonshock

Art Unit

2173

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 42-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,7,9-35,42-48 and 50 is/are rejected.
- 7) ☒ Claim(s) 3-5,8 and 49 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-15-05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Non-Final Rejection

Response to Amendment

1. It is hereby acknowledged that the following papers have been received and placed on record in the file: Amendment as received on 6-15-2005.

Claims 1-50 have been examined.

Status of Claims:

2. Claims 1, 2, 6, 7, 9-35, 42-48, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marmel, "Microsoft project 2000", and Elliott, An Introduction to Architectural Exploration.

3. Claims 3-5, 8, and 49 are objected to as being dependent upon a rejected base claim.

4. Claims 36-41 have been canceled by the applicant.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 12, 26, and 34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The specification at page 10 states that "Computer-readable media are any available media that store or carry a modulated data signal and can be accessed within a computing environment." Such a "media" can be "communication connection(s)", which according to the ability to "carry a modulated data signal" is a reference to the carrier wave or signal itself.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 6, 7, 9-35, 42-48, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marmel, "Microsoft project 2000", and Elliott, *An Introduction to Architectural Exploration*.

8. With regard to claim 1, which teaches a method comprising: displaying in a Gantt chart of a top level structure, Marmel teaches, on pages 8, 50, and 51, presenting a schedule, including one or more sub elements, in the form of a Gantt chart where the chart can display only the top level structure. With regard to claim 1, further teaching displaying the first loop schedule where control step timing is presented relative to the first loop schedule, Marmel teaches, on page 263, the 9/3 and 8/27 not being relative to the upper timeline but to its own line. Marmel further teaches, on page 17, the percentages complete being relative the individual sub element. Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, it is further noted on page 264, that dates are shown in Gantt bars. Marmel, teaches the limitation as cited above, but Elliott teaches a loop structure that more closely resembles that of the claims (see Elliott, Part III, section 3.5 and Part I, in the figure below section 6.5), here Elliott teaches a Gantt chart comprising a loop structure where control step timing within the

first loop is relative to the first loop schedule (this can be seen in the diagram where the user has traced through the architecture selecting a view by loop display). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

9. With regard to claim 2, which teaches displaying the first loop schedule hierarchically nests the first loop schedule in the top level structure, Marmel teaches, on pages 6 and 7, the "Interview developers" through the "Write product overview" being hierarchically imbedded within "Product Research." Elliot further teaches that elements in a Gantt chart can be loop elements (see section 3.5 and Part I, in the figure below section 6.5). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

10. With regard to claim 6, which teaches hiding the first loop schedule responsive to a command from the designer, Marmel further teaches, in pages 50 and 51, elements being able to be hidden upon selection from the user to allow for "various levels of detail".

11. With regard to claims 7, 29, and 32, which teaches displaying a textual list of operations, and displaying an icon adjacent a loop label in the textual list, the icon indicating whether the first loop schedule is expanded or collapsed and allowing for such, Marmel further teaches, in pages 50 and 51, elements being able to be hidden upon selection from the user to allow for “various levels of detail” where it is known in the art that the collapsing will change the minus next the textual description to a plus.
12. With regard to claim 9, which teaches the Gantt chart includes at least one pseudo-operation icon, Elliott teaches, in Part III, section 3.5, the inclusion of pseudo-operations in the Gantt table.
13. With regard to claim 10, which teaches the first loop includes plural alternate branches of execution having different lengths, wherein control step timing within the first loop is independent of the different lengths, Marmel further teaches, in page 263, sub-elements that have their own sub-elements, but the parent sub elements locally displayed timing (9/) is independent of the time of the different sub elements.
14. With regard to claims 11, 25, 30, and 33, which teach the design tool being a behavioral synthesis tool, Marmel teaches, on pages 8 and 9, a system used for organization and visualization of a series of tasks (Behavioral Synthesis).
15. With regard to claims 12, 26, and 34, which teach the system using a computer readable medium, Marmel further teaches, on page 3, the system being implemented in Microsoft Project, which is known in the art to be used in a computer readable medium.
16. With regard to claim 13, which teaches a design tool for presenting information, Marmel teaches, on page 8, presenting a schedule including one or more sub elements.

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With regard to claim 13, further teaching presenting first information for a block of design, the block including a sub-block that includes a number of timing step, Marmel teaches, on page 263 and 264 and in figure 9-12, a top level block ("Conference"), including sub-blocks with independent timing notes ("8/25", "10/14", "8/27", and "8/18") that are not relative to the top level schedule but to their own line. With regard to claim 13, further teaching presenting second information for the sub-block of the design, wherein timing within the block is presented as independent of the number of timing steps of the sub-block, Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") that are independent of the top level schedule, it is further noted on page 264, that dates are shown in Gantt bars. Marmel, teaches the limitation as cited above, but Elliott teaches a loop structure that more closely resembles that of the claims (see Elliott, Part III, section 3.5 and Part I, in the figure below section 6.5), here Elliott teaches a Gantt chart comprising a loop structure where control step timing within the first loop is relative to the first loop schedule (this can be seen in the diagram where the user has traced through the architecture selecting a view by loop display). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

17. With regard to claim 14, which teaches the block being for a top-level loop, wherein the top-level loop includes a nested loop, and wherein the sub-block is for the

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nested loop, Marmel teaches, on page 263, this hierarchical arranged structure of elements and sub-elements.

18. With regard to claim 15, which teaches the sub-block being for one of plural alternative branches of execution within the block, Marmel teaches, on page 263, blocks having sub blocks with a plurality of branches.

19. With regard to claim 16, which teaches the first information is a block schedule and the second information is a sub block schedule, Marmel teaches, on page 263, a first information (Initial planning) is a block schedule and a second information (Selection) is a sub block schedule.

20. With regard to claim 17, which teaches the first information being a block schedule and the second information being an icon representing a sub-block schedule, Marmel teaches, on page 263 and on pages 50 and 51) the (Initial planning) which can be displayed expanded, and the (Selection) which can be displayed contracted.

21. With regard to claim 18, which teaches the icon in a clock overhead space of a timing step, Marmel teaches, on page 263 the hierarchy being arranges so that icons representing steps are arranged above and below parent/child steps.

22. With regard to claim 19, which teaches the timing within the sub-block being relative to the sub block, Marmel teaches, on page 263, the timing (9/) within the Selection sub block being independent of the global time.

23. With regard to claim 20, which teaches the timing steps of the sub-block are control steps, and wherein the block and the sub-block including an independently numbered set of control steps, Marmel teaches, on page 263, the timing (8/25) within

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the Initial planning sub block and the timing (9/) within the Selection sub block being independent of the global time. Elliot further teaches in 6-3 and in the figure on the same page, a subset of the whole program (the loop) having independent control steps.

24. With regard to claim 21, which teaches the second information being nested in the first information, Marmel teaches, on page 263, the Initial planning block having the Selection sub block nested in it.

25. With regard to claim 22, which teaches presenting the sub-block schedule in a separate window, Elliott teaches, in part 1, in the figure below section 6.5, the loop being displayed by itself through the "view by loop" command.

26. With regard to claim 23, which teaches the operation labels including one or more sub-block operation labels indented relative to the one or more block operations in the list, Marmel teaches, on page 263, the Initial planning block having the Selection sub block indented under it.

27. With regard to claim 24, which teaches presenting a third information for a sub-block of the design, wherein the second sub-block includes a second number of timing steps, and wherein timing is presented independent of the second sub-block display, Marmel teaches, on page 263, the Initial planning block having the Selection sub block nested in it and the Selection block having a Public relations block imbedded within it, each with there own relative timing; and Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, it is further noted on page 264, that dates are shown

in Gantt bars. Elliot further teaches in 6-3 and in the figure on the same page, a subset of the whole program (the loop) having independent control steps.

28. With regard to claim 27, which teaches in a design tool, a hierarchical Gantt chart comprising: plural nested schedules for a design, each of the plural nested schedules including: lines of schedule information including at least one operation icon. Marmel teaches, on pages 263 and 264, a hierarchical Gantt chart, in figure 9-12, nested elements having independent timings ("8/25", "10/14", "8/27", and "8/18") not relative to the top level schedule, it is further noted on page 264, that dates are shown in Gantt bars. With regard to claim 27, further including a line of control step labels, Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule. It is further noted on page 264, that dates are shown in Gantt bars. With regard to claim 27, further teaching each of the lines including at least one operation icon, Marmel teaches, on page 263, each of the elements having a icon to expand or contract the sub-elements. Marmel, teaches the limitation as cited above, but Elliott teaches a loop structure that more closely resembles that of the claims (see Elliott, Part III, section 3.5 and Part I, in the figure below section 6.5), here Elliott teaches a Gantt chart comprising a loop structure where control step timing within the first loop is relative to the first loop schedule (this can be seen in the diagram where the user has traced through the architecture selecting a view by loop display). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops

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as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

29. With regard to claim 28, which teaches the parent schedules being in a clock overhead space relative to the child schedules, Marmel teaches, on page 263, the parent schedules being in a clock overhead space relative to the child schedules.

30. With regard to claim 31, which teaches in an electronic circuit or system design tool, a method of presenting a list of operations for an electronic circuit or system design, the method comprising: presenting a top level list of one or more operations for the design wherein the top-level list includes a first loop label for a first nested loop, Marmel teaches, on pages 8, 50, and 51, presenting a schedule in the form of a Gantt chart where the chart can display only the top level structure. With regard to claim 31, further teaching displaying the first loop schedule where timing is presented relative to the first loop schedule, Marmel teaches, on page 263, the 9/3 and 8/27 not being relative to the upper timeline but to its own line. Marmel further teaches, on page 17, the percentages complete being relative the individual sub element. Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, several of the labels match that as is in the top level schedule (such as "10/14"), but others are clearly showing a different time (such as "8/25", "8/27", and "8/18"). It is further noted on page 264, that dates are shown in Gantt bars. Marmel, teaches the limitation as cited above, but Elliott teaches a loop structure that more closely resembles that of the claims (see Elliott, Part III, section 3.5 and Part I, in the figure below section 6.5), here Elliott teaches a Gantt

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chart comprising a loop structure where control step timing within the first loop is relative to the first loop schedule (this can be seen in the diagram where the user has traced through the architecture selecting a view by loop display). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

31. With regard to claim 35, which teaches in an electronic circuit or system design tool, a method of presenting a list of operations for an electronic circuit or system design, the method comprising: presenting a top level list of one or more operations for the design wherein the top-level list includes a first loop label for a first nested loop, Marmel teaches, on pages 8, 50, and 51, presenting a schedule in the form of a Gantt chart where the chart can display only the top level structure. With regard to claim 35, further teaching displaying the first loop schedule where timing is presented relative to the first loop schedule, Marmel teaches, on page 263, the 9/3 and 8/27 not being relative to the upper timeline but to its own line. Marmel further teaches, on page 17, the percentages complete being relative the individual sub element. Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, several of the labels match that as is in the top level schedule (such as "10/14"), but others are clearly showing a different time (such as "8/25", "8/27", and "8/18"). It is further noted on page 264, that dates are shown in Gantt bars. With regard to claim 35, further teaching hiding the first

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loop schedule responsive to a command from the designer, Marmel further teaches, in pages 50 and 51, elements being able to be hidden upon selection from the user to allow for "various levels of detail". With regard to claim 35, further teaching the presenting an icon adjacent the first loop label, the icon indicating whether a sub-list of one or more operations for the first nested loop is expanded or collapsed, Marmel teaches, on page 263, each of the elements having a icon to expand or contract the sub-elements. Marmel, teaches the limitation as cited above, but Elliott teaches a loop structure that more closely resembles that of the claims (see Elliott, Part III, section 3.5 and Part I, in the figure below section 6.5), here Elliott teaches a Gantt chart comprising a loop structure where control step timing within the first loop is relative to the first loop schedule (this can be seen in the diagram where the user has traced through the architecture selecting a view by loop display). It would have been obvious to one of ordinary skill in the art, having the teachings of Marmel and Elliott before him at the time the invention was made to modify the Gantt chart of Marmel to include the use of loops as did Elliott. One would have been motivated to make such a combination because program code could be efficiently organized in the structure taught by Marmel.

32. With regard to claims 42, 43, and 47, which teach the design tool being an electronic circuit or system design tool, and wherein the design is an electronic circuit or system design, Elliot further teaches, in part 1 page 1, the system used in a register transfer level design tool.

33. With regard to claim 44, which teaches the timing within the block being presented as independent in that the second information is presented within a single

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timing step of the block regardless of the number of timing steps of the sub-block, Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") that are independent of the top level timing, several of the labels match that as is in the top level schedule (such as "10/14"), but others are clearly showing a different time (such as "8/25", "8/27", and "8/18"). It is further noted on page 264, that dates are shown in Gantt bars. Elliot further teaches in 6-3 and in the figure on the same page, a subset of the whole program (the loop) having independent control steps.

34. With regard to claim 45, which teaches the timing steps of the sub-block are presented within the single timing step of the block, Marmel teaches, on pages 263 and 264, the timing of the sub-blocks is presented within the timing interval of the block just not relative to the block timings.

35. With regard to claim 46, which teaches the icon being presented in a scheduling frame that shows allowable locations of the sub-block schedule within the block schedule, Marmel teaches, on page 263, each of the elements having a icon to expand or contract the sub-elements if it is possible for sub-elements to exist there.

36. With regard to claim 48, which teaches the at least one operation icon each represents a scheduled operation, Marmel teaches, on page 263, each of the elements having a icon to expand or contract the sub-elements, where the sub-elements are scheduled operations.

37. With regard to claim 50, which teaches presenting a third information for a sub-sub-block, wherein the sub-sub-block includes a second number of timing steps, and

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wherein timing within the sub-block is presented independent of the second number of timing steps, Marmel teaches, on page 263, the nesting of sub-elements in other elements, each with there own relative timing; and Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, it is further noted on page 264, that dates are shown in Gantt bars. Elliot further teaches in 6-3 and in the figure on the same page, a subset of the whole program (the loop) having independent control steps.

Allowable Subject Matter

38. Claims 3-5, 8, and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

39. Mamel and Gantt teach a Gantt chart that contains sub-elements (which can be loops), however, specifically the prior art of record fails to clearly teach or support the limitations of the loop schedule including control step timing that is independent of the overall timing of the Gantt chart.

Response to Arguments

40. The arguments filed on 6-15-2005 have been fully considered but they are not persuasive. Reasons set forth below.

41. The applicants' argue that even if the displayed text for a task bar somehow relates to a date, this does not change the timing followed in the Marmel Gantt chart.

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42. In response, the examiner respectfully submits that Marmel teaches, on pages 263 and 264, the date labels of the Gantt chart, in figure 9-12 ("8/25", "10/14", "8/27", and "8/18") are not relative to the top level schedule, several of the labels match that as is in the top level schedule (such as "10/14"), but others are clearly showing a different time (such as "8/25", "8/27", and "8/18") these values reference to an independent time/date. It is further noted on page 264, that dates are shown in Gantt bars. If a sub-element of the claimed invention has its own timing this as well doesn't change the timing followed by the top level of the Gantt chart.

43. Claim 13, which is part of what the applicant is arguing, doesn't even contain a Gantt chart nor the display of information.

Conclusion


44. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis G. Bonshock whose telephone number is (571) 272-4047. The examiner can normally be reached on Monday - Friday, 6:30 a.m. - 4:00 p.m.

45. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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46. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9-2-05
dgb



RAYMOND J. BAYERL
PRIMARY EXAMINER
ART UNIT 2173